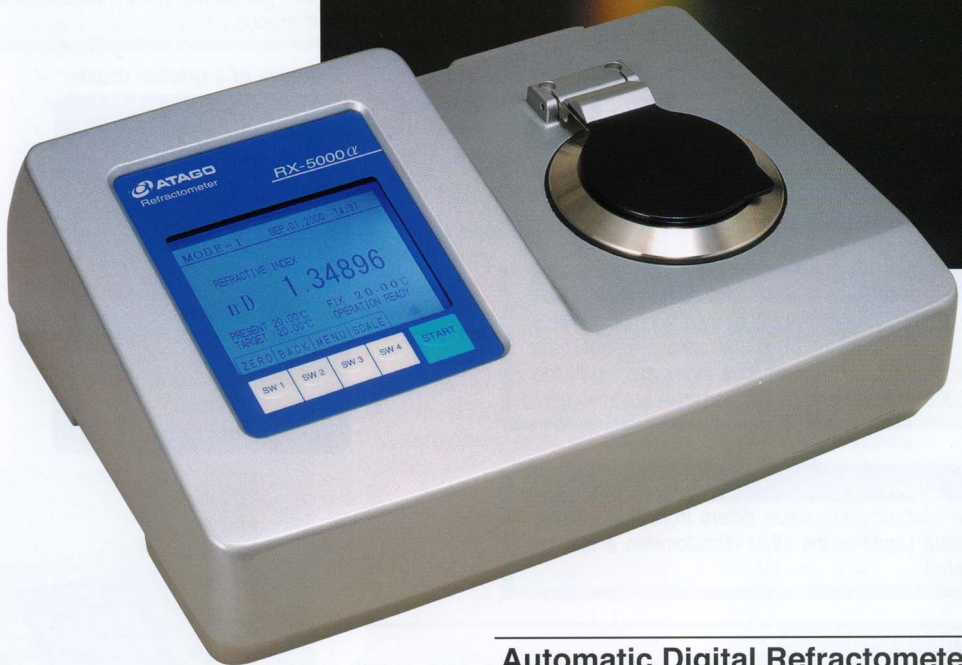


Refractive index(nD)

Brix

User scale

Ultimate refractometer
which can set measurement
temperature internally!



Automatic Digital Refractometer

RX-5000α

Cat.No.3261

Cutting-edge technology product is brought to you!

Features

Automatic measurement at your targeted temperature

- Measurements can be started without worrying about current temperature.
- Brix and the refractive index at your targeted temperature are speedily displayed.

Constant temperature water bath is not necessary.

- Since the RX-5000 α has a thermo-module to control temperature, the measurement starts after the sample reaches your targeted temperature.
- Raising and lowering of the temperature are possible in a short time.

High accuracy with the latest technology

- High Brix $\pm 0.03\%$ and refractive index ± 0.00004 accuracy can be obtained.

Up to 30 kinds of user scales are made by this machine.

- Thirty kinds of user scales can be input according to your sample. If 3 points of actual measurement data corresponding to the refractive index are input, the RX-5000 α makes your customized scale automatically.

Manual calibration is done at operator's own discretion.

- If the measurement value differs from that of your Standard Liquid or the other refractometer, it can be adjusted.

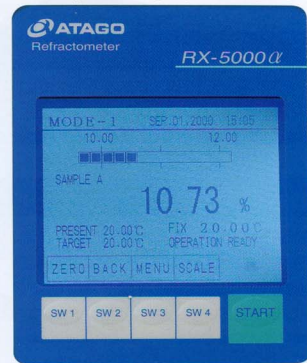
History function

- The RX-5000 α is capable of calling up 30 latest measurements.
- With an optional DP-62 α Digital Printer, measurement data can be printed out.

New user-friendly function

- The RX-5000 α displays the top-and-bottom-limit-bar for your set control range(tolerance).
- You can see at a glance whether the measured value is within the tolerance.

Example of a graphic display



Printing of contents

Name of sample, as well as the number of samples, date, month, year, time, measurement value and temperature can also be printed out.

Example:1

Date,month,year

Example:2

Date,month,year

Number of samples

Time

Number of samples

Time

No.0001 OCT. 05, 2000 15:27
nD=1.34567 Brix=10.00% t=20.00

No.0001 OCT. 05, 2000 15:27
SAMPLE A=10.00% t=20.00

Measurement value

Temperature

Measurement value

Temperature

Name of sample



The RX-5000 α is an automatic digital refractometer developed based on our long experience and achievements in this field. It has various features for measuring the refractive index, Brix or concentration of various liquids accurately and speedily.

Application

Refractive index(nD) measurements

Light oil
Heavy oil
Crude oil
Industrial medicine
Flavor
Citrus oil
Chemicals
Methylene chloride
Polymer
Vegetable oils and fats
Edible oil
Animal oils and fats
Spice oils
Medicinal liquid
Insulating oil
Heavy water
etc.

Brix measurements

Fruit juice
Soft drinks
Tea drinks
Oolong tea
Green tea
Coffee drinks
Cocoa drinks
Lactic drinks
Alcohol drinks
Soybean milk
Concentrated fruit juice
Tomato juice
Puree
Canned syrup
Liquid sugar
Glucose
Starch
Honey
Jam
Condensed milk
Soy sauce
Sauce
Ketchup
Soup
Wort
Vinegar
Pickle(liquid)
Waste liquid of sugar
etc.

User scale measurements

Lubricating oil
Water-soluble cutting oil
Quenching oil
Water-soluble detergent
Coolant and brine solutions
Ethylene glycol
Propylene glycol
Rust preventive
IPA
PVA
Ethanol
Alkaline solution
NaOH
Sodium carbonate
Sodium glutamate
Acetic acid
Citric acid
Amino acid
Glycerin
Protein
Injection liquid
Surfactant
Cupric sulfate
Formalin
Gelatin
Cesium chloride
Salt water
Calcium chloride
Seawater
Fire extinguishing solution
Coating solution
H₂O₂
DMF
Ammonia
Urine
Sizing liquid
Waste liquid of alcohol
etc.



Specifications

Cat.No. : 3261

Measuring system : Optical-refraction critical-angle detection system

Constant-temperature function : Built-in thermo-module

Measurement items : Brix (Automatic temperature compensation),
Refractive index(nD),
User scale(30 kinds of user scale can be input)

Measurement range : Brix 0.00 to 95.00%,
Refractive index (nD)1.32700 to 1.58000

Minimum indication : Brix : 0.01%, Refractive index (nD): 0.00001,
Temperature : 0.01 $^{\circ}$ C

Measurement accuracy : Brix : $\pm 0.03\%$ (on measurement of sucrose),
Refractive index (nD) : ± 0.00004

Types of modes :

① **MODE1** : The thermo-module in RX-5000 α operates. If droplets of a sample are applied to the prism and then the start key is pressed, the measurement starts after the sample reaches the target temperature.

② **MODE2** : The thermo-module in RX-5000 α operates. If droplets of a sample are applied to the prism and then the start key is pressed, the unit measures the refractive index and temperature at a fixed interval and displays the estimated value at the target temperature.

It takes shorter time to measure in this mode, since the unit does not wait until the sample reaches the target temperature. The measurement accuracy in this mode is lower than that in MODE-1, however.

③ **MODE3** : The user can turn on and off the thermo-module in RX-5000 α freely.

The unit starts measurement immediately after droplets of a sample are applied to the prism and the start switch is pressed, and displays the measured value 4 seconds later. The time to start measurement after the start key is pressed can be delayed manually.

Automatic temperature compensation range for Brix : 5.00 to 60.00 $^{\circ}$ C
Measurement temperature : 5.00 to 60.00 $^{\circ}$ C (The lower limit is the room temperature -(minus) 10 $^{\circ}$ C)

Temperature display accuracy : $\pm 0.05^{\circ}$ C

Display method : LCD dot display (320 \times 240 dots), with back light

Graphic display : If top and bottom limits of standard value are set, top and bottom limit bar is displayed together with measured value.

Input of user scale : If 3 points of user scale corresponding to refractive index are input, main unit makes conversion formula automatically. Unit (% , g/100g, g/100ml, mol/l, %mas, %vol, no unit) can be displayed.

History function : Up to 30 latest measurements can be displayed and can be printed.

Zero adjustment : Zero point is adjusted with distilled water.

Manual calibration : Indicated value can be changed in a certain range.

Output : ① Digital Printer DP-62 α (Optional) is used.

② Communication method: RS-232C

Input power source : AC100 to 240V, 50/60Hz

Power consumption : 480VA

Light source : LED (Approximating to wavelength of D line)

Materials : ① Prism: Artificial sapphire

② Prism stage: SUS 316

Sample volume : More than 0.1ml

Environmental conditions :

Using temperature: 5 to 40 $^{\circ}$ C, Using humidity: Max. 90%RH,

Using altitude (Above sea level): Max. 5,000 m

Dimensions and weight : 37 \times 26 \times 14cm, 9kg

Options

Digital Printer DP-62 α

Cat.No. : 3019

Input method : Conforms to Centronics standard(with connection cable)

Type of printer : Thermal dot matrix printer

Printed items : Refractive index, Brix, User scale, Temperature, Date, Month, Year, Time

Power supply : DC8.5V from the RX-5000 α

Power consumption : 13VA

Dimensions and weight : 7 \times 16 \times 7cm, 580g

Adapter for volatile samples

RE-56151



HACCP G.M.P. G.L.P.

ATAGO products are installed in HACCP, G.M.P., and G.L.P. systems.

*Specifications and design of appearance are subject to change without notice.

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